IDRC-TS39e

Educational Networks in Latin America

Their Role in the Production, Diffusion, and Use of Educational Knowledge

Ernesto Schiefelbein

The International Development Research Centre is a public corporation created by the Parliament of Canada in 1970 to support research designed to adapt science and technology to the needs of developing countries. The Centre's activity is concentrated in five sectors: agriculture, food and nutrition sciences; health sciences; information sciences; social sciences; and communications. IDRC is financed solely by the Parliament of Canada; its policies, however, are set by an international Board of Governors. The Centre's headquarters are in Ottawa, Canada. Regional offices are located in Africa, Asia, Latin America, and the Middle East.

© 1982 International Development Research Centre
Postal Address: Box 8500, Ottawa, Canada K1G 3H9
Head Office: 60 Queen Street, Ottawa, Canada

Schiefelbein, E.

IDRC-TS39e

Educational networks in Latin America : their role in the production, diffusion, and use of educational knowledge. Ottawa, Ont., IDRC, 1982. 44 p. : ill.

/Educational research/, /educational development/, /information networks/, /Latin America/ - /information dissemination/, /educational projects/, /institutional framework/, /research workers/, /periodicals/, /references/.

UDC: 37.001.5 (8=6) ISBN: 0-88936-350-1

Microfiche edition available

Il existe également une édition française de cette publication.

La edición española de esta publicación también se encuentra disponible.

IDRC-TS39e

EDUCATIONAL NETWORKS IN LATIN AMERICA:

Their Role in the Production, Diffusion, and Use of Educational Knowledge

Ernesto Schiefelbein

Prepared for the Educational Research Review and Advisory Group

ACKNOWLEDGMENTS

The Research Review and Advisory Group (RRAG) and the Centro de Investigación y Desarrollo de la Educación (CIDE) provided support and critical comments for this work. Carmen Lorenzo made valuable suggestions. Discussions with my colleagues L. Brahm, J.E. García-Huidobro, P. Cariola, and G. Gutierrez of CIDE, with R.G. Myers and P. Latapí of RRAG, and with D. Buckley of the Unesco Institute for Education are also reflected in this paper.

CONTENTS

INTRODUCTION 5

RESEARCH GROWTH IN THE LAST DECADE 7

IMPROVEMENTS IN THE DIFFUSION PROCESS 9

THE NETWORKING ISSUE 13

LOOKING FOR SOME EXPLANATORY VARIABLES 21

USE OF KNOWLEDGE FOR IMPROVING EDUCATIONAL SYSTEMS 23

CONCLUSIONS AND RECOMMENDATIONS 25

NOTES 28

ANNEX I. PERIODICAL PUBLICATIONS WITH LATIN AMERICAN DISTRIBUTION 38

ANNEX II. REGIONAL MEETINGS 42

INTRODUCTION

Interest in educational research has increased markedly in the last decade. It is doubtless related to the use of research results to improve education, especially in developing countries, and to humanity's growing ability to program inventions. During this century, industries within advanced countries have developed research as a powerful tool to generate increments in productivity. More recently, the orbiting of spaceships has required an incredible number of programed inventions. In this context, when affluent societies started far-reaching social programs, research funds were made available for several disciplines in the social sciences - including education. Developing countries have also tried to improve education and decision-makers have demanded more and better information in this field.

Some doubts have been raised, however, about the use of research results in decision-making processes. Industrial managers have attempted to relate research costs to research benefits. Similar doubts have been cast on educational research.[1] Lack of use has been detected and can be related to the isolation of researchers. The emphasis is now on diffusion and several experiments in national or regional cooperation have already been carried out. Many of these have assumed the form of networks - chains of individuals or institutions that interact in a systematic way. Some networks are only interested in the production of research; others seek to improve the flow of information already available; and, in some cases, both aspects are included in the objectives of the networks.

This report deals with major networks operating in Latin America. It identifies overlappings and possible social forces that are shaping the development of networks. It provides information that could be used in future forums on educational research.[2] If other countries were to carry out similar studies, it would be possible to compare the alternative patterns of development and to draw additional conclusions.

Research is defined in this report as any activity that leads to better information or produces findings relevant to policy formulation.

RESEARCH GROWTH IN THE LAST DECADE

Ten years ago, most of the empirical research on Latin American education was done by foreign scholars sometimes associated with regional researchers. Only a few educators in each of the Latin American countries produced significant papers, dealing mainly with test validation, psychology, or enrollment/attrition processes.[3] Although many interesting curricular and school organization experiments were carried out, the results were usually transmitted informally and few projects included an assessment of the findings. Until recently, little was known about research efforts in Latin American education. For instance, in the papers prepared for the 1970 Conference on the Educational Experience in Latin America[4], sponsored by the Ford Foundation and held in Buenos Aires, very few research papers on Latin American education were identified and only a few were the works of regional authors.[5] A proposal for funding a Journal of Abstracts was rejected at that time because donor agencies believed there was not enough quality research to be summarized.

From October 1972 to December 1980, the **Resúmenes Analíticos**, published by the Centro de Investigación y Desarrollo de la Educación, abstracted over 1900 papers and two-thirds of these constituted empirical studies. Today, about 100-150 research papers of high quality are produced annually in Latin America.[6]

In only a few countries (Brazil, Colombia, and now Mexico) are specific research projects requested of scholars. Usually, there are no clients for the results of a project.[7] In most cases, there is a gradual transition from initial goals to definition of a project that eventually obtains (or distracts from another purpose) some funds and that with luck is finally carried out. It is unusual to obtain criticism at each stage of the research process (i.e., design, instruments, and analysis) and fieldwork is limited. In many cases, individuals with some free time involve themselves in information gathering and are able to describe an educational problem. Results are seldom written or presented to others for consideration. All in all, bureaucracy can still be considered, today, as a help to educational research.

Frequently, in the past, educational researchers had no academic training or previous practical experience in research techniques. They were afraid to make mistakes and took too much time at each stage of their work. They often sought the advice of foreigners to prevent criticism of their lack of training. The experience gained through learning by doing was seldom used in later research. If successful, the researcher moved into an administrative position; otherwise, the first research was

never finished. High correlations between success in research and promotions can be found, but the causal relationship may be previous training or personal characteristics instead of research results.

Although they are still limited, new types of research activities are developing. Young people with graduate studies abroad are obtaining support from foreign foundations, national universities, or Ministries of Education to carry out carefully designed research projects.[8] They are becoming recognized as leaders in the field despite being few in number. Their opinions are respected and considered when making "technical" decisions.

Full-time researchers are rapidly growing in number. From fewer than 20 working in three or four centres in the mid-1960s, they have increased 10-fold. About 200 researchers from 16 Latin American countries and 800 researchers from Mexico attended the 1978 meeting of the Comparative and International Education Society held in Mexico City. Now, there are a wide variety and range of studies. Not only is particular attention paid to each educational level but also different disciplines have differing perspectives, from the medical to the architectural to the economic point of view. There are micro studies (school level) and macro studies (system level), but the trend is toward applied research.[9] Centres are becoming involved in the application of their research results. A detailed review of this point is made below.

Many individuals are also participating in short-term courses sponsored by OAS*, Unesco, CELAM, and other institutions. They are changing the traditional patterns of research described above.[10]

Growth trends might well be maintained in the near future partly because developed countries are setting the example[11] and partly because developing countries are trying to understand their own educational systems.[12] Planners are demanding more objective data.[13] Each country is training more educational researchers and researchers returning to their own countries will be required to work in their particular field of studies.

---

* See Table 2 and Fig. 1 for all acronyms.

IMPROVEMENTS IN THE DIFFUSION PROCESS

The two main aspects under consideration are: improvements in the regional distribution of educational journals and opportunities for personal exchange among researchers and between researchers and individuals interested in their results. Other aspects of the diffusion process will be touched on in discussing networks and the use of knowledge.[14]

Journals with Latin American distribution have increased from seven in the 1960s to fourteen in the 1970s.[15] Many new ones emphasize empirical studies in education (Table 1). Several other Latin American journals in the social sciences publish educational articles and abstracts of many mimeographed papers circulate through the **Resúmenes Analíticos** or the Co-operative Educational Abstracting Service of the International Bureau of Education. All journals created in the 1970s have editorial boards monitoring the quality of articles accepted for publication. There is also a growing queue of articles submitted for appraisal, a factor that tends to increase quality.

Other periodical publications, mainly newsletters and library-entry news, are registered in the OREU documentation centre in Santiago.[16] Each country has several periodical publications: over 100 in the more developed countries and less than 10 in the smaller and less developed ones.[17] Although there are numerous one-issue adventures in the editing of journals, many survive for several years (Annex I).

Seminars and meetings are more frequent now in Latin America and the outstanding scholars in each field usually have the opportunity to exchange views. In 1977, the OREU documentation centre received at least 45 reports of regional meetings (Annex II). If meetings in the related social sciences that deal with education are included, about 100 regional meetings are held each year. Thus, 1000-2000 individuals devoted to education (administrators, teachers, professors, researchers, legislators, reporters, and parents) are given the opportunity to discuss educational problems each year.

The periodic meetings of directors of educational research centres deserve special mention. The directors have met six times since nine of them gathered for the first meeting in Oaxtepec in 1972.[18] Joint studies, on-the-job training, and journals are a few outcomes of such meetings.

Table 1. Characteristics of educational journals in Latin America.

Journal	Topic	Country	Editorial board	Starting date	Issues/ year	Average/issue	
						Pages	Articles
Boletín CINTERFOR	Vocational education	Uruguay	No	1965	4	80	6
Boletín de Educación	Education	Chile	No	1967	2	75	6
COMESCAL	School construction	Mexico	No	1965	4	80	8
Cuadernos Fundaçao Chagas	Educational research	Brazil	Yes	1971	4	160[a]	5
Educaçao e Sociedades	Education	Brazil	-	1978	3	190	11
Educación de Adultos	Education	Chile	Yes	1978	1	160	6
Educación Hoy	Education	Colombia	Yes	1971	6	70	5
Ensayos ECIEL	Social sciences	Brazil	Yes	1976	-	-	-
Estudios Sociológicos	Social sciences	Chile	Yes	1973	4	130	6
Forum Educacional	Education	Brazil	-	1976	4	100	5
La Educación	Education	United States	No	1956	2	130	5
Resúmenes Analíticos	Education	Chile	Yes	1972	4	130	60[b]
Revista Brasileira de Estudos Pedagogicos	Pedagogy	Brazil	No	1915	4	155	6
Revista de la Educación Superior	Education	Mexico	Yes	1972	4	140	4

Table 1 (Cont'd).

Journal	Topic	Country	Editorial board	Starting date	Issues/ year	Average/issue	
						Pages	Articles
Revista del Centro de Estudios Educativos	Educational research	Mexico	Yes	1971	4	170	7
Revista Paraguaya de Sociología	Social sciences	Paraguay	Yes	1963	3	200	6
Tecnología Educativa	Education	Venezuela	Yes	1973	4	150	7
Universidades (UDUAL)	Higher education	Mexico	No	1961	4	275	10

[a] Each issue has 110 pages, but because of its large size there are about 800 words/page. Each page is equivalent to 1.6 standard pages.

[b] Only the abstracts of articles.

In the circumstances, Latin American researchers no longer need to communicate among themselves exclusively through American or European journals or to be introduced to each other through a non-Latin American scholar. These direct contacts have a tremendous impact on the flow of information all over the region.

Seminars dealing specifically with information problems[19] or research[20] have played a major role in the increment of diffusion mechanisms. Unesco, OAS, and CINTERPLAN sponsored meetings where administrators and researchers could exchange opinions.

At the national level, several countries have held meetings for educational researchers.[21] An evaluation of the five meetings held in Chile, in the 1969-1980 period, showed increases in the linkages among individuals and institutions as well as in the quantity and quality of papers. Several attempts to create American-style professional associations have been recorded.[22] Salaries and social incentives in the region are not compatible, however, with the fees and travel expenses of such organizations and, more importantly, the prestige related to such organizations is not consistent with salaries and promotions.[23]

Because it comprises several countries, the Latin American region faces serious problems in the diffusion of research. Inefficient mail services and complex customs procedures are two barriers to the flow of information. In many cases, centres or public institutions do not have the funds for buying stamps or duplicating a report. The high cost of air tickets (the average air fare per participant at a regional meeting is about US $700) reduces personal contacts and encourages attendance at those meetings only where travel costs are paid. If little more can be achieved at the international level, information flow can be considerably improved at the national level. Several countries are producing good magazines - they need to come out on a more regular basis, however - that are distributed free of charge to all teachers from time to time (see Annex II). There is still, however, a lack of linkage between research and these magazines. Because library personnel is scarce and because continuous operation of libraries is uncertain, researchers are discouraged from submitting their reports and their books to libraries. To increase national coordination, a political will to do so is necessary, as was observed in Mexico's Programa Nacional Indicativo for educational research.

THE NETWORKING ISSUE

Network development[24] in Latin America can be traced either from the point of view of topics or of the organizations sponsoring each network. Given that institutions are usually switching from one topic to another, the sponsoring organizations will be examined first. In some cases, the networks are linked through information transfer; exchanges of documents; discussion of research results, methods, or priorities; or training and follow-up activities. No attempt is made here to classify networks by these types of linkages.

Ten years ago, five educational networks could be identified in Latin America: two sponsored by international organizations (UN and OAS), one by the United States (AID), and two by the Catholic schools (CLAR and CELAM) and the universities (UDUAL and CHEAR). All but CHEAR are still operating in the region.[25] Table 2 lists organizations sponsoring educational networks in Latin America.

The UN network places special emphasis on technical assistance and training of indigenous personnel. It comprises several internal networks - seven networks are listed in Table 2 but there are others related to education. In the field of education, Unesco is the most relevant and includes several specialized channels: ILCE in the field of visual communications, CREFAL for training specialists in basic adult education, CONESCAL in the field of educational buildings.[26] ILO's interest in technical training has led to the creation of a regional centre for systematic exchange of information (CINTERFOR).[27] This centre has developed what could be considered one of the most structured networks in the region. Through PREALC, ILO analyzes, in conjunction with Unesco, the relationships between education and employment. FAO fosters interaction among individuals interested in agricultural training and WHO provides support in the areas of health, nutrition, and family planning. CEPAL includes education as one component of the social sector and participates in the training of educational planners and in seminars dealing with developments in the educational sector. Finally, the United Nations Development Programme seeks to coordinate each one of these agencies' activities and participates in regional seminars. The country programing that it has elaborated helps to coordinate activities at the national level.

In recent years, some CEPAL activities have been incorporated with Unesco and United Nations Development Programme activities in a new project (DEALC) that attempts to foster communication among individuals interested in economic development and education. Unesco has made special efforts to support research activities in the less

Table 2. Organizations sponsoring networks related to education in Latin America.

UN Agency Organizations
CEPAL (Comisión Económica para América Latina)
  DEALC (Proyecto "Desarrollo y Educación en América Latina y el Caribe")
  DOCPAL (El Sistema de Documentación sobre Población en América Latina)
FAO (Food and Agriculture Organization)
IBRD (International Bank for Reconstruction and Development)
  EDI (Economic Development Institute)
ILO (International Labour Organization)
  CINTERFOR (Centro Interamericano de Investigación y Documentación sobre Formación Profesional)
  PREALC (Programa Regional del Empleo para América Latina y el Caribe)
Unesco (United Nations Educational, Scientific and Cultural Organization)
  IERS (International Educational Reporting Service)
  OREU (Oficina Regional de Educación de la Unesco)
    CEDEFT (Centro de Desarrollo de Enseñanza y Formación Tecnológica)
    CONESCAL (Centro Regional de Construcciones Escolares para América Latina y la Región del Caribe)
    CREFAL (Centro Regional de Educación de Adultos y Alfabetización Funcional para América Latina)
    CRESALC (Centro Regional para la Educación Superior en América Latina y el Caribe)
    Documentation centres
    ILCE (Instituto Latinoamericano de la Comunicación Educativa)
  UNU (United Nations University)
UNICEF (United Nations Children's Fund)
WHO (World Health Organization)

Organization of American States (OAS)
CIENES (Centro Interamericano de Enseñanza Estadística)
PDR (Programa de Desarrollo Regional)
PREDE (Programa Regional de Desarrollo Educativo)
  PMIE (Proyecto Multinacional de Investigación Educativa)
    CEMIE (Centro Multinacional de Investigación Educativa)
    CINTERPLAN (Centro Interamericano de Estudios e Investigaciones para el Planeamiento de la Educación)
PTE (Proyecto de Tecnología Educativa)

Ministry of Education of the Latin American Countries
CAB (Convenio "Andrés Bello")

Table 2 (Cont'd).

Donor Agencies
AID (United States Agency for International Development)
DSE (Deutsche Stiftung für Internationale Entwicklung)
Ford Foundation
IAF (Inter-American Foundation)
IDB (Inter-American Development Bank)
IDRC (International Development Research Centre)
NOVIB (Nederlandse Organisatie voor Internationale Bijstand)
Rockefeller Foundation
SAREC (Swedish Agency for Research Cooperation with Developing Countries)
Van Leer Foundation

Private Organizations
ALER (Asociación Latinoamericana de Educación Radiofónica)
APICE (Asociación Panamericana de Instituciones de Crédito Educativo)
CELAM (Consejo Episcopal Latinoamericano)
CHEAR (Council on Higher Education in the American Republics)
CLACSO (Consejo Latinoamericano de Ciencias Sociales)
CLAR (Confederación Latinoamericana de Religiosos)
CLEA (Consejo Latinoamericano de Educación de Adultos)
CPU (Corporación de Promoción Universitaria)
ECIEL (Programa de Estudios Conjuntos sobre Integración Económica Latinoamericana)
GULERPE (Grupo Universitario Latinoamericano de Estudio para la Reforma y Perfeccionamiento de la Educación)
ICAE (International Council for Adult Education)
UDUAL (Unión de Universidades de América Latina)

developed countries of Latin America and has assigned a person to keep specialized Latin American networks in operation.[28] The UNU also supports certain research activities.[29] In addition, support has been provided for a regional system of documentation centres[30], coordinated with the International Bureau of Education (IBE/IERS).[31] Unesco and the United Nations Development Programme attempted to reach a more comprehensive type of coordination in Central America but political problems put an early end to their efforts in 1980.

The OAS networks operate in much the same manner. Ten years ago, all networking activities were centred on holding seminars and using Latin American researchers as experts in a different country. Since the Development Funds system was elaborated in Maracay in 1967, the PMIE has been launched[32], a regional centre for Central America (CEMIE) has been created as well as another centre in Buenos Aires[33], and several projects have been sponsored in different countries. In 1977, a new centre was launched in Caracas with a large endowment from the Venezuelan Government.[34] There is also a very well structured network of specialists in educational technology with a journal and an excellent newsletter.[35] Similar efforts have been made in other areas, such as sciences and mathematics.[36] Through CIENES, the OAS trains specialists in educational statistics and communicates with them through an informal newsletter.[37] Through the PDR, OAS maintains several training projects in different areas (see OAS. 1977. Programa de Desarrollo Regional, OAS, Washington, DC.). The OAS and Unesco cooperate in several projects and a joint steering committee has been functioning for several years. As mentioned above, some advances have been made.[38]

In recent years, the AID network has been concentrating on the conceptual and statistical aspects of sector assessments. Several seminars have focused on measuring benefits[39], financing[40], and collecting basic data[41], and a group of researchers has undertaken sector assessments of different countries[42]. The Academy of Sciences has also supported population and education studies.[43] More recently, the U.S. Government has funded IAF to support development activities such as rural education and self-employment schemes. The Scholarship Program of American Universities has become a potential network for linking university professors across disciplines. The AID Research and Development Abstracts are still a valuable diffusion mechanism that includes education among other topics.

Catholic Church schools represent one-fifth of the total enrollment in the region. Each congregation provides a channel for communication.[44] In addition, there are two regional organizations, CLAR and CELAM, through which Catholic education is organized.[45] Since they started a joint effort to train planners for local development[46], more than 1000 principals and educational leaders have been trained. The latter keep in touch through an informal newsletter and personal contacts.[47]

Universities have represented an important network since the beginning of the decade. An association led by Mexican scholars constitutes the most structured network - UDUAL. It holds periodic conferences and has been publishing a journal since 1961. To keep Latin American and American university presidents in touch, IIE has been sponsoring CHEAR. The Institute is responsible for Latin American students doing graduate work in American universities and has helped to solve some problems of student allocation. In addition to these two networks, there are, of course, all the professional network relationships; their impact seems to be small except for physicians and, at a reduced level, planners and engineers.

In recent years, new channels of communication have developed. They are for the most part private and informal in nature. Seven of these are described below. (See Figure 1.) The international networks described above have remained relatively stagnant. Even CAB, organized by the countries bordering the Andean Mountains, can be considered as a small impact network because only Ministries of Education are involved and high turnover of leadership does not permit buildup of professional links.

Several Latin American countries have created student loan institutions based on the successful example of the Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior. They have shared experiences at several meetings.[48] The educational lending institutions of 18 countries are responsible for the growth of APICE.

Another Colombian example - radio schools - triggered several experiments with mass media all over Latin America. The organizations created are usually headed by enthusiastic and energetic individuals, they meet regularly, and they are organized through ALER.[49]

Broadcasting of Sesame Street versions for Latin America has stimulated consulting seminars and research on the impact of the series. Unfortunately, the interest in sharing experiences in broadcasting the series is decreasing although the results of local evaluations are positive. The initial contacts did not create permanent linkages but did generate an interest for broadcasting the series.

The work of Paulo Freire, the need for skilled workers, the concept of lifelong education spread by Learning to Be[50], the interest in family planning, and the international seminars have stimulated interest in adult education. OAS and ICAE are now supporting a network that deals with this issue.[51]

The social sciences continue to expand and the need for comparative studies has helped the main research centres to join in CLACSO.[52] Funds channeled through CLACSO have supported several educational research projects. The more structured discipline

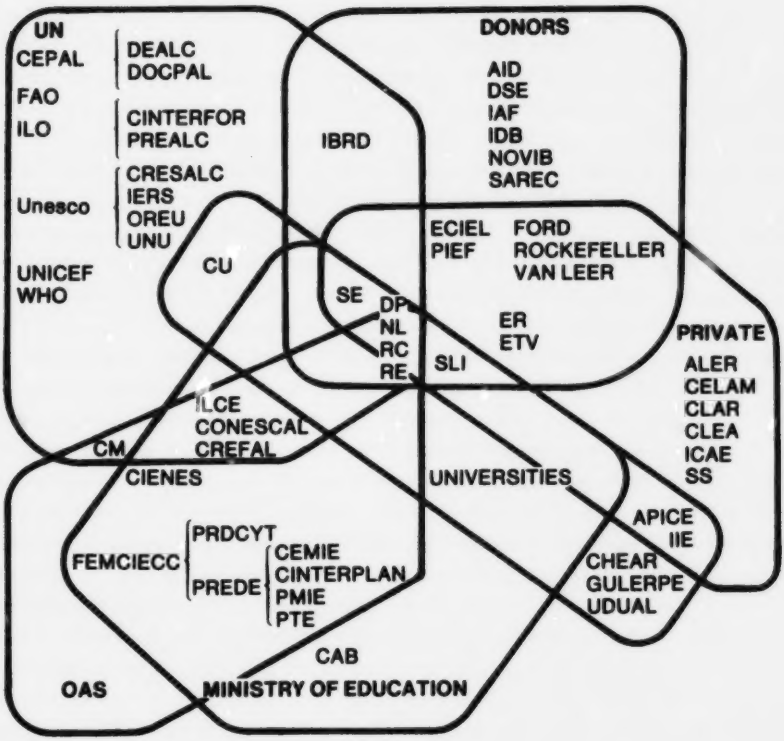

Fig. 1. Illustration of some educational networks. The acronyms not included in Table 2 are: CELADE (Centro Latinoamericano de Demografía); CM (Unesco/OAS steering committee); CU (centres associated with UNU); DC (documentation units - mainly government-based); DP (development projects - including education, nutrition, population, and community development); ER (radio education projects - mainly members of ALER); ETV (educational TV programs and projects); FEMCIECC (Fondo Especial Multilateral para la Educación, la Ciencia y la Cultura); IIE (International Institute of Education); NL (newsletters); PIEF (Program in International Education Finance - ended in 1978); PO (planning offices); PRDCYT (Programa Regional de Desarrollo Científico y Tecnológico); RC (research centres - including units at Ministries); RE (education journals); SE (schools of education); SLI (student loan institutions - mainly members of APICE); and SS (Sesame Street - Childrens' TV Workshop).

of economics received support from the Brookings Institution to start a program of comparative research through ECIEL.[53] The latter launched a project in education and development funded by the Ford Foundation, IDB, and IDRC.[54]

In the last decade, the main source of funding for educational research in Latin America was the Ford Foundation. IDRC, IAF, AID, and some European sources have since joined the Ford Foundation efforts. These agencies publish newsletters and reports on grants. Private centres are developing in Argentina (Centro de Investigaciones en

Ciencias de la Educación, Centro de Investigaciones Educativas), Chile (CIDE, Programa Interdisciplinario de Investigación en Educación), Brazil (Fundaçao Carlos Chagas), Mexico (Centro de Estudios Educativos), Paraguay (Centro Paraguayo de Estudios Sociológicos), and Uruguay (Centro de Investigación y Experimentación Pedagógica).[55] Other specialized centres are also in operation, for example, CPU, the Instituto Latinoamericano de Investigaciones Científicas en Educación a Distancia, and the Red de Información Educativa. Several newsletters are now distributed throughout Latin America.

The aid agencies from Germany (DSE) and Sweden (Swedish International Development Authority and SAREC) provide funds for projects submitted by the research centres or the regional networks and sponsor seminars and scholarships. Their activities are paralleled by the World Bank. IBRD finances research related to their needs and training for individuals to prepare and evaluate educational projects. The training is carried out by EDI of the World Bank. About 160 Latin Americans have been trained in this way. The World Bank maintains contact with them through newsletters and personal exchanges with Bank experts.

Linkages within the region are even greater if foreign networks dealing with regional researchers or institutions are included. For example, the International Education Finance Program of the University of California[56] communicates with many Latin American centres. The Clearinghouse on Development Communication is also active in the region.[57] The Overseas Liaison Committee of the American Council on Education provides means of communication between North American and Latin American specialists in higher education. The International Law Commission is attempting to launch an international learning cooperative.[58] The computer-based International Development Education Documentation Service of the University of Pittsburg has more than 100,000 technical reports dealing among other things with Latin America and its collection grows at a rate of over 30,000 entries each year. Many foreign specialists are interested in Latin American education.[59] These different types of potential networks reveal the complexity of relationships within Latin America.

Networks can also be defined from the point of view of topics (Fig. 2). Several groups are concentrating on mass media education (ALER, ILCE, IERS); others are interested in educational financing (IBRD, APICE, ECIEL, CHEAR, UDUAL, DEALC, CINTERFOR); and many are concerned with population (CELADE, DOCPAL, PREALC, CIENES, ECIEL, IBRD, IDB, AID). Educational levels, educational technology, health, statistics, and research itself are other areas where regional groups are working together. Thus, an extremely complex web of networks are working within the region on educational research.

In 1976, member states asked Unesco to create a regional network of centres for

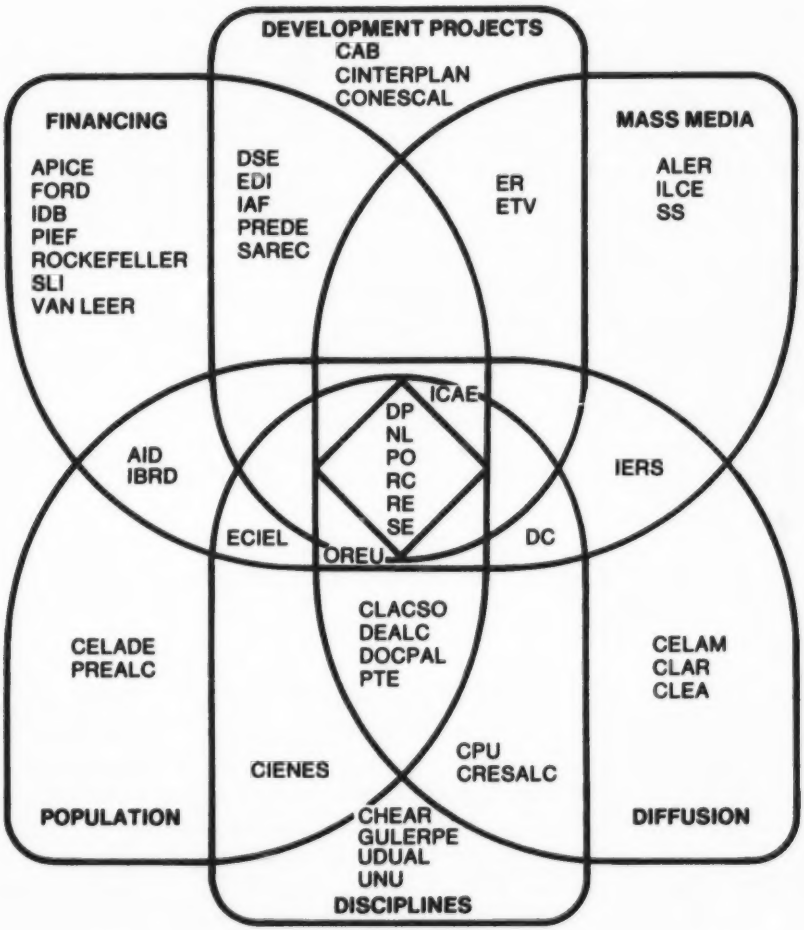

Fig. 2. Educational network interactions by topics. All acronyms are defined in Table 2 and Fig. 1.

training specialists in educational planning and administration, educational research, evaluation, curricula, educational technology, and teacher training.[60] This suggests that there is a lack of knowledge with regards to the existing situation in the region.

LOOKING FOR SOME EXPLANATORY VARIABLES

Evidence of the steady growth of educational research and diffusion has been presented in the previous pages. It is too early to assess the ultimate benefits of this process, but one can show that there are positive contributions.

The evidence also suggests, however, that considerable improvements are still in order.[61] Too many activities are underway in Latin America and too many overlap. If some type of control is to be implemented, it must be derived from those forces that are responsible for the growth.

The high level of activity has been generated by the increasing interest of international banks in financing educational projects; the launching of joint-effort projects through a new mechanism (Proyectos Regionales) created by OAS; the involvement of international organizations in employment and educational requirements for employees; the international acceptance of responsibility for inequalities in a common world; the tremendous expansion of educational services (at least at the primary level); the emergence of social sciences as research-oriented disciplines[62]; and the development of the mass media. A few mechanisms are highlighted in the following pages.[63]

Journals have performed a valuable service in bringing together "producers of knowledge" and possible users - the number of quotations from papers published in the new journals is an indicator of the exchange.[64] Editorial boards have defined quality standards and suggested improvements to authors. Mailing lists have been produced and, little by little, new users are being identified throughout the world. Although they play a key role, journals cover only one-fifth of the empirical studies produced in Latin America as shown by the abstracts prepared by the Centro de Investigación y Desarrollo de la Educación.[65] Most educational research results still circulate as mimeographed papers.

The graduate training effort of the 1960s is also showing some effects. A growing proportion of university staff now have a PhD or an MA, mainly from American universities but also from good European universities. Most researchers have been exposed to American professional societies, styles of work, research methods, and social recognition. Research is enhanced because of this exposure to American academic life, especially at the graduate level. Upon returning to their native universities after graduate work, educational researchers press for research facilities (e.g., creation of institutes) and communicate with other local researchers pursuing investigations in

related fields and with their former professors. New graduates are chosen for leading administrative positions and are willing to support and further research. The increment in graduate-level studies in Latin American universities also favours research efforts.

Facilities can be considered as an important explanatory variable for the increasing research and networking activities in Latin America. Since the end of the 1970s, computers have become available for scientific work. In most cases, library programs were not available in the past. The best example is the Servicio de Consulta a Bancos de Información in Mexico, sponsored by CONACYT. The Statistical Package for Social Sciences was implemented in Chile in 1975 to avoid the costly need for programmers. Data bank facilities are appearing. CELADE now has samples of recent census data for most Latin American countries and special tabulations can be obtained at reasonable costs.[66] More recently, CELADE has launched DOCPAL - abstracts are stored in a computer, can be scanned at a later date, and retrieved according to the researchers' field of interest.[67] The educational data bank developed in Venezuela is no longer in use.

Librarians are now receiving higher levels of training and specialized bibliographies and documents are more readily available.[68] The greater pool of research centres makes it easier to design joint projects with researchers in other disciplines and to obtain the results of complementary research.[69] Television ratings and marketing services make it simpler to mount large-scale fieldwork projects. In short, many external facilities are available for researchers who are willing to undertake research activities.

The new sources of funding also explain the developments in educational research. The Ford Foundation provided the seed money in the early 1970s. Later on, AID and OAS provided special funds for training researchers and for supporting their initial studies. More recently, the World Bank[70] and IDB have financed research proposals to help them improve their own project-evaluation procedures. IDRC, SAREC, and some German foundations are now interested in the possible social effects of educational research on Latin American countries. Research efforts in nutrition and in population were identified with education as key variables in their own field. Funds devoted to other disciplines are supporting education-related research. The researchers' technical expertise could provide a permanent input to research institutions, but the latter must be convinced of this.[71] Transnational corporations may be playing a role in the process but little can be said about it.[72] All in all, funding has improved the educational research capacity at the regional level. Funds are still required, however, for the continuous operation of research institutions.

USE OF KNOWLEDGE FOR IMPROVING EDUCATIONAL SYSTEMS

"There is widespread agreement that in the past research often has not been useful for policymakers..."[73] This statement can be false[74] or at the very least misleading. If one is thinking in terms of classroom changes, it can be true: "Our knowledge (of what goes on in our schools) is exceedingly limited".[75] If one is thinking in terms of high first-grade repetition or lack of opportunities for students from rural areas, research has had an important impact on policymakers in the least developed countries. Jumping from valid conclusions in developed countries[76] to doubtful extrapolations to developing countries seems to be a very popular and dangerous exercise.[77] It can influence opinions and be used later on as proven fact.[78]

The diffusion of research results, the retrieval of previous findings, and the relevance of research depend on the needs of researchers, centres, sponsors, universities, decision-makers, or the educational system. Little research is available to answer such questions as: Who are the main users of the available information? What additional feasible information is required? Where may highest payoff be obtained?[79]

Latin American centralized educational systems have few relationships with the dissemination schemes underlying the analysis of the American situation.[80] If selective information is received and accepted by key individuals, it may have tremendous impact in shaping future policy in each country.

It may be true that "people generally do not read what they do not solicit".[81] Shrewd politicians or good reporters are usually willing, however, to solicit results on key educational issues. The World Bank's Education Sector Policy paper has been sought by Latin American Ministries of Education who have found that the policies are based on research results from Latin America.[82]

It has been suggested that research results need to be translated for each potential group of users.[83] Researchers have developed a jargon that helps them to communicate quickly and accurately, but practitioners need to have the results in plain language. In this sense, the mass media provide a generally accepted translation and an effective means of diffusion to all groups. Researchers should therefore be urged to establish closer ties with the mass media.[84]

Research findings seldom provide specific solutions to concrete problems at the operational level.[85] Some changes in the Latin American educational system can be

related to previous research results, however. In addition, the main effect of all the development described above may be linked to an increment in the level of sophistication for defining educational problems and designing appropriate solutions, thus avoiding simplistic analysis of causes and effects.

In less than a decade, several Latin American countries have increased the number of grades in the basic educational system so students from lower socioeconomic levels can stay in school for longer periods. At the same time, many have tried to introduce measurable objectives in the curriculum. Nongraded-one-teacher schools are now fully supported in several countries. Research results may have played a limited role in these changes, but there are other cases where research has been decisive.

Studies on the distributive effects of educational expenses are questioning the advantages of free-education-for-all that benefits only certain sectors of the population. Studies on the time spent by each student in the educational system and the number of grades passed are demanding changes in the internal efficiency of the system instead of blaming noneducational factors. Research on the factors affecting school achievement have supported investment in textbooks as a cheap means of improvement. These few examples of change relate to previous research and can be detected in present educational discussions in Latin America.

Educational projects and plans and the critiques[86] prepared by nongovernmental centres are dealing with educational problems in a more comprehensive and complex way. An important by-product of research has been the training of qualified personnel.[87]

It is difficult to label the role that research and networking have played in the educational developments in Latin America. The effects of research on educational practice are usually indirect and are felt only over appreciable periods of time.[88]

In Latin America today, managers are better trained - some at the graduate level - and use more empirical evidence. The demand by policymakers for research[89] increases direct use of research. Projects defined by clients still tend, however, to limit the scope of research and the potential for innovation.[90] The forecasted demand is only a fraction of total research efforts. One serious problem is the funding of research activities in the region, with the exception of university research at the graduate level.

CONCLUSIONS AND RECOMMENDATIONS

In the last decade, a research-capacity-building model was developed in Latin America based on a core of research centres. Research activities were split between diagnosis of the main educational problems and selected research on key issues. The centres created a vast system of educational networks. Today, researchers are coping with problems in a sophisticated manner, technological transfers are initiated and experimental programs are developed to further replicability at the national level.

The first stage of a research tradition has already been achieved in the region. It can be labeled a "top down" tradition because of its emphasis on "knowledge push".[91] A large body of critical research is now available. It is necessary, however, to ensure the continuous operation of the core centres, to incorporate centres from other countries in the core group, and to gain more leverage for the use of research results in policymaking. Increasing the quality of new centres requires not only technical assistance from the core group through joint projects but new sources of funding for training and fieldwork. Quality within the core centres must also be raised.

Ministries of Education are using highly trained personnel to improve their projects. Because they are vying with other Ministries for budget funds (or looking for loans from international banks), they try to increase their revenues by designing better projects. Investment projects and research have a lot in common, and research can be encompassed in a project. There are, however, differences and some compromise solutions should be worked out in the near future. Both creative and applied research need to disagree from time to time with educational policies developed by the Ministries but they also need to support the latter in their efforts to create innovative projects. In the recent past, Ministries have shown a capacity for change.

Researchers must increasingly sell their product. They have to show decision-makers the difference that applied research makes. Any type of research can, however, generate criticism of current activities and funds tend to increase at a very slow rate. Central planning offices could be in a more neutral position to support applied research. Support for research activities should also come from outside the government; otherwise researchers will turn to consulting activities that may be valuable to the contracting institution but that cannot be accumulated as new knowledge.

There is a need for markets where researchers and consumers of research can meet and make transactions and for a market on the technology required to "produce" research. Both should be coupled with an efficient system of information transmittal.

The efficiency of the system of information transmittal should be equivalent to the efficiency of the price system in a competitive economy. If it is properly determined, the information system will strengthen the utilization and the production of research. The regional information service for Latin America and the Caribbean (REDUC) is one system that has experienced several problems in dissemination of information.[92] At present, very little is written on significant innovations; libraries in teachers' colleges are understaffed and poorly financed; documentation centres do not have the needed funds for subscriptions; foreign currency transactions make payments difficult[93]; Brazilian documents do not reach the rest of Latin America[94]; and many doctoral dissertations and scholarly papers on Latin America prepared in America or Europe do not circulate in the region.[95] On the other hand, many national centres are now collecting materials produced in each country for circulation through the REDUC system.

Networks play an important role in the creation of research markets. There are, however, substantial differences in their organization, characteristics, targets, membership, stability, and linkages. Most operate in a rather informal basis. Although networking is a fashionable word and each of the seminars held in recent years has proposed the creation of a new network, very few have been systematically implemented. This is perhaps because little is known about the dynamics of network development. New networks are none the less required. The abstracts published in the last 5 years by the Centro de Investigación y Desarrollo de la Educación have identified several important areas - curriculum is probably the most relevant[96] - where specialists have worked without communicating with other specialists. Attention should focus on channeling researchers in the same field through existing networks (see Annex I).

Current networks can be described from different points of view and alternative patterns of relationships can be identified among members. For example, if members are grouped according to their interest in the application of knowledge, at least four categories can be defined[97]: groups interested in diffusing results through journals and newsletters (Centro de Estudios Educativos, Centro de Investigación y Desarrollo de la Educación, CPU, CLAR, OAS, Unesco, and documentation centres); groups interested in personal contacts across professional or cultural barriers (ECIEL, CLACSO, PTE, CHEAR, UDUAL); Ministries - including parents' associations, industrial, and social groups - interested in applying knowledge through concrete action (CONESCAL, CINTERPLAN, OREU, CAB, EDI, PREALC); and research centres interested in assessing available information in given situations (UNU, PTE, DEALC, CLACSO, IERS). Other groups can be identified for training activities (EDI, CIENES, UDUAL, IIE) and development projects (ALER, IIE, APICE, IBRD, IDB), but overlapping would increase. There is little evidence that linkages are missing between these main groups; any missing linkages might be created through the definition of basic problems. It is difficult to detect the need for research results and there is a risk of transforming research into an elite exercise. Investigators are not convinced (or there are no social incentives for doing so) of the need to communicate important research results. There are no automatic social stimulae

to publish or to discuss with other interested parties.[98] These areas should be considered when creating a market for research.

For the time being, written communication is the most promising line to improve linkages among individuals and centres interested in research. The sample of recent periodical publications (Annex I) shows the continuity of many journals and newsletters. All have a small distribution because very few attempts have been made to cover the whole region. Communication may be improved if networks are related to journals, but there are financial constraints. If a tradition of usage is to be created, distribution should be made free of charge for several years to come.

A few users, mainly Ministries of Education and some Schools of Education, have benefited from free access to publications in the past. It may be time to assess which other groups should be included to maximize diffusion. Schools of Education and newspapers are likely candidates for the next stage. Access, for example, to microfiches or articles abstracted by **Resúmenes Analíticos** could be a relatively cheap way to improve use of research and research methods among students of pedagogy.

The educational sector resembles a pyramid with a wide base and a narrow apex. There are few leaders and many participants. Each is responsible for a group of children and it is necessary to reach each to introduce change in the classroom. In other words, education requires efficient international networks to reach leaders and national ones to stimulate innovation in classroom procedures. Given the number of teachers working in each country, national networks need to use the mass media.

International networks depend on the strength of national networks. Participants at Seminario '80 felt that regional networks should reinforce the operation of national networks.[99] National networks provide the best opportunity to educate consumers of research; valuable experiences have already been carried out in Colombia[100], Mexico[101], and Chile.[102] The potential use of networks by teachers is very promising, but a systematic effort is essential to get them involved and few funds are available.

Regional experiences suggest that a world information network should be based on sound development at the regional and national levels.[103] Linguistic and cultural factors may greatly increase the need for standardization and translation of terminology.

Finally, it would be desirable to carry out some research on the use of research results. There is a need for additional knowledge, for greater efficiency of diffusion, for translators to bridge the gap between researchers and practitioners, and for studies on the power structure in educational decision-making.

NOTES

1. W.J. Gephart. 1977. Does research provide help for the educator? In N.N. and Q, Phi Delta Kappa Newsletter, 21(5).

2. IDRC (International Development Research Centre). 1976. Education research priorities. IDRC, Ottawa, Canada. (Internal communication)

3. There were many philosophical or historical essays but very few empirical studies.

4. The Ford Foundation. 1970. A report on a conference on the educational experience in Latin America, Buenos Aires, 25-29 May 1970. The Ford Foundation, New York.

5. LASA (Latin American Studies Association). 1967. Latin American Research Review, III(1), 5-62. LASA, Chapel Hill, North Carolina.

6. Research is defined as any activity that leads to better understanding of educational problems and produces findings relevant to policy formulation and program planning - IDRC, cited in note 2, above.

7. There is a vicious circle: educational research is not fitted to decision-makers' needs, therefore they do not use it or provide funds for it - A.R. Netto. 1976. Estímulos a Pesquisa Educacional. Cadernos Fundação Chagas (Brazil), no. 16. Discussion of educational research priorities has only taken root recently - M.L. Franco and M.A. Goldberg. 1976. Prioridades em Pesquisa Educacional. Cadernos de Pesquisa (Brazil), no. 16; J. Castrejón et al. 1976. Programa Nacional Indicativo en Ciencias y Técnicas de la Educación (Mexico), Documento: 15.

8. A.J. Gouveia. 1971. A Pesquisa Educacional do Brasil. Cadernos de Pesquisa (Brazil), no. 1; E. Schiefelbein. 1973. Investigación Educacional en Chile. Revista del Centro de Estudios Educativos (Mexico), 3(4); G. Corvalán. 1977. Programa Paraguayo-Alemán de Educación y Desarrollo (Paraguay), Documento de Trabajo: 2.

9. J.E. García-Huidobro and J. Ochoa have analyzed the first 1000 abstracts of the Centro de Investigación y Desarrollo de la Educación. See A. Magendzo. 1978. En Torno a los Problemas e Interrogantes que Plantea la Investigación en América Latina. Programa Interdisciplinario de Investigación en Educación, Chile. (Mimeographed document)

10. A total of 336 researchers participated in 10 seminars sponsored by Unesco and carried out over 60 regional studies - Unesco. 1975. Resúmenes de las Investigaciones Hechas en los Seminarios Nacionales Efectuados en 1974-75. SERIE/SEM/INVEST/2. Unesco, Paris. Over 1000 individuals have been trained through the Proyecto de Tecnología Educativa; the latter is now sponsoring national seminars on the work developed in each of 10 countries and, through its journal, publishing the results of fieldwork and offering cash prizes for the best papers - C. Chadwick. 1977. La Comunidad de Tecnología Educativa en América Latina. Revista de Tecnología Educativa, 3(2).

11. D. Krathwohl. 1977. Improving educational research and development. Educational Researcher, 6(4).

12. One can infer on the basis of responses from 34 Latin American educational planners that research has a high priority. In the long run, these opinions might make for the allocation of more resources to research. See IIEP (International Institute for Education Planning). 1977. Cuestionario sobre el Trabajo del IIEP: Informe. Paris.

13. D. Lemke. 1975. La Investigación Educacional en Latinoamérica y el Caribe: Una Visión Histórica. SERIE/SEM/INVEST/1. Unesco, Paris.

14. Pablo Latapí has suggested that research diffusion be considered as a social process but such an attempt goes beyond the scope of this paper - P. Latapí. 1977. A note on the diffusion of educational research. Research Review and Advisory Group, Toronto, Canada. (Mimeographed document)

15. Journals with Latin American distribution have been defined in a subjective way. Annex I gives a more comprehensive list of periodical publications.

16. Unesco. 1972. Publicaciones Periódicas de Educación de América Latina y el Caribe. Oficina Regional de Educación de la Unesco, Santiago. The documentation centre also publishes reports on research centres, documentation units, specialized bibliographies and related topics.

17. See A. Magendzo, cited in note 9, above, p. 12. A report on Mexican educational journals has already been published - CEE (Centro de Estudios Educativos). 1976. Revista del Centro de Estudios Educativos (Mexico), 6(7).

18. The final report of the first meeting has been published - CEE (Centro de Estudios Educativos). 1972. Revista del Centro de Estudios Educativos, 2(4). The third meeting was held in Buenos Aires, the fourth in Lima, and the fifth in Montevideo - E. Schiefelbein. 1977. Tecnología Educativa (Venezuela), 3(1). The sixth meeting was held in Mexico in 1978.

19. See the documents prepared by the countries for the 36th Session of the International Conference on Education held in Geneva in September 1977 - Ministerio de Educación Nacional. 1977. El Problema de la Información en el Sistema Educativo Colombiano. Ministerio de Educación Nacional, Bogotá, Colombia; INIDE (Instituto Nacional de Investigación y Desarrollo de la Educación). 1977. El Problema de la Información a Nivel Nacional como Consecuencia del Mejoramiento de los Sistemas Educacionales. INIDE, Lima, Peru.

20. D. Lemke. 1976. Seminarios Regionales. Una Nueva Metodología para Iniciar el Cambio desde el Aula. Boletín de Educación (Chile), n. 20; Unesco. 1976. Reunión sobre la Aplicación de las Recomendaciones de la Conferencia de Ministros de Educación de Venezuela, Panamá; and Unesco. 1966. Informe Final, Seminario Interamericano de Documentación, Mar del Plata, Argentina.

21. A. Magendzo, cited in note 9, above, p. 13. Five countries (Bolivia, Colombia, Chile, Mexico, and Venezuela) have recently held national meetings to discuss research and their conclusions were studied at a regional meeting - E. Schiefelbein and J.E. García-Huidobro. 1980. Seminario '80. Documentos de Trabajo del Centro de Investigación y Desarrollo de la Educación, Santiago, Chile.

22. C. Chadwick, cited in note 10, above, pp. 162-163.

23. E. Schiefelbein. 1972. La Communicación entre los Centros de Investigación en Educación. Revista del Centro de Estudios Educativos (Mexico), 2(4).

24. For the purposes of this study, a network is formed by institutions or individuals who are linked through information transfer or collaborative action. For a detailed discussion, see B. Hudson et al. 1976. Knowledge networks for educational planning. Urban Planning Program, University of California, Los Angeles.

25. Letter of the President of the Institute of International Education, 10 March 1977: "Some time ago the CHEAR concept was expanded to other parts of the world and is known there as International Councils on Higher Education...(in) 1976 the ICHE and CHEAR programs were transferred...into the mainstream of IIE's activities."

26. Some institutions are also receiving funds from other sources, for example OAS or IDB. These are examined in the later pages of the report.

27. The Centro Interamericano de Investigación y Documentación sobre Formación Profesional publishes a journal (Table 1) and edits a newsletter and a series of technical reports. Several interamerican seminars and joint projects are supported by this institution.

28. Seminars were held in Buenos Aires (1968) and Santiago (1971), and several other workshops were held during 1974-1975 in the Latin American region - D. Lemke, cited in note 20, above. The network issue was studied at a regional conference of Ministers of Education and Ministers responsible for the application of science and technology to development, held in Caracas in 1971.

29. The United Nations University held a regional meeting in Caracas in October 1977.

30. Carmen Lorenzo presents an excellent summary of the development of documentation centres and data retrieval systems in Latin America - C. Lorenzo. 1975. Los Servicios de Documentación e Información Educacional en América Latina. Boletín de Educación (Chile), no. 17. The Centro Latinoamericano de Documentación Económica and Documentación en Población para América y Social Latina include education in their files. For a description of the former, see IDRC (International Development Research Centre). 1978. CIID Informa, 7(4), 22. IDRC, Ottawa, Canada.

31. The International Educational Reporting Service has published a Spanish version of "Innovation", where experiences and innovative projects are summarized. There are other mechanisms for coordinating documentation centres - Unesco. 1976. Reunión Especial de Trabajo de Directores y Especialistas de la Red Internacional de Centros de Documentación sobre Políticas e Investigaciones en Materia de Comunicación. Unesco, Paris. The International Bureau of Education has a data base with information on research institutions, documentation units, and other topics.

32. OAS (Organization of American States). 1969. Proyecto Multinacional de Investigación en Educación. São Paulo, Brazil. O. Kreimer presents a detailed report of the advances made in the past decade - O. Kreimer. 1978. La Investigación Educativa en Latinoamérica y el PREDE. La Educación, no. 78-80, 155-190. Organization of American States, Washington, DC.

33. The centre in question is the Centro Multinacional de Educación. There is another centre, the Centro Interamericano para el Desarrollo Social Integrado, operating in Buenos Aires, Argentina.

34. The Centre hopes to join researchers and planners in defining its work plan - CINTERPLAN (Centro Interamericano de Estudios e Investigaciones para el Planeamiento de la Educación). 1977. Reunión Técnica Consultiva. CINTERPLAN. Caracas, Venezuela.

35. The Educational Technology Unit of the Organization of American States sponsors a newsletter distributed from Venezuela and monitors the activities of former trainees.

36. OAS (Organization of American States). 1975. Seguimiento de Becarios, Segunda Etapa. Buenos Aires Proyecto Multinacional para el Mejoramiento de la Enseñanza de las

Ciencias. OAS, Washington, DC. There is also the Proyecto Especial de Desarrollo Rural Integrado that operates in 17 countries.

37. CIENES (Centro Interamericano de Enseñanza Estadística). 1977. Plan de Actividades Docentes, Curso Interamericano de Técnicas Estadísticas en Educación, Módulo Especializado. CIENES, Santiago, Chile.

38. Unesco. 1975. Informe de la Quinta Reunión de la Comisión Mixta UNESCO/OEA. 97 EX/37. Unesco, Paris.

39. F. Kiros et al. 1975. Educational outcome measurement in developing countries. Public Services Laboratory, Georgetown University, Washington, DC.

40. M. Zymelman. 1973. Financing and efficiency in education. Agency for International Development/Harvard Project, Cambridge, Massachusetts; and by the same author, Tools for analysis and decision-making in the financing of education. Agency for International Development/Harvard Project, Cambridge, Massachusetts.

41. The Center for Human Resource Research has gathered a massive amount of information for Ecuador. A similar effort is also being carried out in El Salvador.

42. There are reports available for Nicaragua, Paraguay, Bolivia, the Dominican Republic, and Guatemala - A. Daniere. 1979. A survey of education sector assessment in six Latin American countries. Agency for International Development/Harvard Project, Cambridge, Massachusetts.

43. Academy of Sciences. 1973. Population Seminars, Final Report. Academy of Sciences, Washington, DC.

44. Asociación Educación Hoy. 1972. Reflexiones de un Grupo de Jesuítas sobre el Apostolado de la Compañía en América Latina. Educación Hoy (Colombia), 2(10).

45. The Confederación Latinoamericana de Religiosos in cooperation with the Consejo Episcopal Latinoamericano and the Confederación Interamericana de Educación Católica launched **Educación Hoy** in 1971.

46. A first course was held in Guatemala in 1972 - Asociación Educación Hoy. 1972. Educación Hoy (Colombia), 2(8). Since 1972, about 30 courses have been held in all of Latin America. For several years, graduates could keep in touch through a newsletter.

47. The leaders are interested in developing new efforts in diffusion - Asociación Educación Hoy. 1977. La Comunicación Científica en Educación: Producción, Preferencias, Usos e Intercambios de la Información Educativa en Colombia

(Anteproyecto). Educación Hoy, Colombia.

48. Seven meetings were held before 1977. The last meeting was held in Quito in September 1977.

49. CEE (Centro de Estudios Educativos). 1976. Encuentro sobre Educación Radiofónica en América Latina. Revista del Centro de Estudios Educativos (Mexico). 2(2).

50. E. Faure et al. 1973. Learning to be. Editorial Universitaria, Santiago, Chile.

51. The Organization of American Sates publishes **Educación de Adultos** and the International Council for Adult Education publishes the newsletter **Panorama.** The Centro Latinoamericano de Educación de Adultos has an excellent documentation service. The Centro Regional de Educación de Adultos y Alfabetización Funcional para América Latina could act as a starting point to create a new network in this field. See C. Paldao. 1978. La Educación de Adultos en el PREDE. La Educación, no. 78-80, 219-237. Organization of American States, Washington, DC.

52. The Consejo Latinoamericano de Ciencias Sociales distributes a newsletter throughout the region.

53. Barclay Hudson gives a description of the Programa de Estudios Conjuntos sobre Integración Económica Latinoamericana - B. Hudson, cited in note 24, above, pp. 46-48. Robert Myers also described this network - R. Myers. 1981. Connecting worlds. IDRC-TS35e. International Development Research Centre, Ottawa, Canada.

54. See ECIEL (Programa de Estudios Conjuntos sobre Integración Económica Latinoamericana). 1976. Informes del grupo de Educación y Desarrollo. ECIEL, Río de Janeiro, Brazil.

55. These centres are linked through an informal system of annual meetings and through their library accession lists. Nine represent national centres of the REDUC system - P. Cariola. 1981. Germany. The experience of REDUC. Deutsche Stiftung für Internationale Entwicklung, Berlin, Germany.

56. The last of 10 newsletters was published in 1978. Roger Pritchard, with Unesco support, will describe the network's experience. See R. Pritchard. 1980. Informal networks and their properties. Research Review and Advisory Group, Ottawa, Canada.

57. A quarterly Development Communication Report is distributed free of charge to researchers interested in development problems, by the Academy for Educational

Development as part of the Educational Technology Program of the Agency for International Development.

58. The International Law Commission newsletter is distributed to about 1500 researchers (in some 20 countries) concerned with educational practice. Six issues had been released by October 1980.

59. The Centro de Estudios y Documentación Latinoamericanos of Amsterdam identified 443 European specialists in 1973. Although few were specifically interested in education, many were looking at education as a relevant variable in their research. The Latin American Research Center, Texas University, is also the focal point of an educational research network.

60. Unesco. 1976. Education officials of Latin America and Caribbean meet. Unesco Chronicle, 22(4). Unesco, Paris.

61. The same statement has been applied to the American situation - D. Krathwohl, cited in note 11, above.

62. A special issue of **Education and Urban Society** was scheduled to appear in mid-1978. The volume was to examine the role of social scientists in educational decision-making and how educational decision-makers look upon the social sciences.

63. An analysis similar to that of Barclay Hudson is beyond the scope of this report - B. Hudson, cited in note 24, above, pp. 46-70.

64. A few planners, decision-makers, and university professors could be included in this group - examples are given in the later pages of this report. Very few teachers, parents, or legislators seem to be benefiting from the whole process.

65. J.E. García-Huidobro and J. Ochoa. 1978. Tendencias de la Investigación en Educación en América Latina. Documentos de Trabajo del Centro de Investigación y Desarrollo de la Educación, Santiago, Chile.

66. Census data for all countries are stored within the system in a standard format and basic data are already tabulated.

67. CELADE (Centro Latinoamericano de Demografía). 1977. Resúmenes sobre Población en América Latina. CELADE, 1(1). CELADE, San José, Costa Rica.

68. ICAE (International Council for Adult Education). 1977. Bibliografía Comentada sobre Investigación Participatoria. ICAE, Toronto, Canada; OREALC (Oficina Regional de Educación para América Latina y el Caribe). 1977. Bibliografía sobre Educación en

Bolivia. OREALC/Bibliografías/10. OREALC, Santiago, Chile; Centro de Documentación e Investigación Pedagógica. Bibliografía Educativa Venezolana. Universidad del Zulia, Caracas, Venezuela.

69. Unesco. 1977. Análisis Estadístico de Datos Demográficos y Educacionales para el Planeamiento de la Educación en Colombia. SEM/COL/1. Unesco, Paris; Unesco. 1977. Algunos Problemas de la Evolución y la Reforma de la Administración Pública en América Latina. SS-77/Conf.605/8. Unesco, Paris; CINDA (Centro Interuniversitario de Desarrollo Andino). 1975. El Sistema Educativo, el Sistema Científico y el Avance Tecnológico en la Sub-región Andina. CINDA, Santiago, Chile.

70. The World Bank is also interested in research related to policy design, but such activities require knowledge of local conditions. Therefore, local research capabilities are required - World Bank. 1975. Educación. Documento de política sectorial, p. 54. World Bank, Washington, DC.

71. E. Schiefelbein, cited in note 21, above, pp. 539-548.

72. B.N. McLennan. 1977. The impact of transnational corporations on developing countries: a selected review of the literature and annotated bibliography in the areas of education, science and culture and a report on the science and technology research and training policies of transnational and multinational corporations. Reports/Studies/TNC.1. Unesco, Paris.

73. IDRC, cited in note 2, above, p. 5.

74. For Kerlinger, there is no satisfactory empirical answer to the question "How does research influence educational practice?" - F. Kerlinger. 1977. The influence of research on education. Educational Researcher, 6(8).

75. J. Goodlad. 1977. What goes on in our schools? Educational Researcher, 6(3).

76. Even in developed countries, the conclusions are questionable - R. Myers. 1975. Skeptical notes on the relationship between educational research and policy. (Mimeographed document). Gephart states that research does provide help for the educator, but it needs to be translated - W.J. Gephart, cited in note 1, above.

77. E. Shiefelbein. 1973. The impact of the Jencks type of research on developing countries. World Bank Working Paper. World Bank, Washington, DC.

78. See the editorial in CEE (Centro de Estudios Educativos). 1977. Revista del Centro de Estudios Educativos (Mexico), 7(4). According to scholars, policy reactions to research results have not been as intense as expected. See C. de Moura Castro and

G. Bourdignon. 1980. Da Pesquisa a Tomada de Decição: Existen Caminhos Privilegiados. In Seminario '80. Documentos de Trabajo del Centro de Investigación y Desarrollo de la Educación, Santiago, Chile.

79. Additional questions are presented for discussion by P. Latapí, cited in note 14, above, and D. Lemke, cited in note 13, above, pp. 11-13.

80. R. Havelock gives three models of knowledge diffusion but does not identify the individuals with decision-making power - R. Havelock. 1979. Planning for innovation through dissemination and utilization of knowledge. Center for Research on Utilization of Scientific Knowledge, Ann Arbor, Michigan.

81. B. Hudson, cited in note 24, above, p. 103.

82. World Bank, cited in note 70, above, pp. 41 and 45.

83. W.J. Gephart, cited in note 1, above.

84. The public discussion of Jencks' inequality is one good example of research results covered by the press.

85. R. Myers, cited in note 76, above.

86. For example, CEE (Centro de Estudios Educativos). 1977. Comentarios del CEE a los aspectos educativos del Primer Informe Presidencial (10 de septiembre de 1977). Revista del Centro de Estudios Educativos (Mexico), 7(3).

87. This point was also raised by R. Myers, cited in note 76, above, pp. 13-16.

88. F. Kerlinger, cited in note 74, above.

89. CINTERPLAN (Centro Interamericano de Estudio e Investigaciones para el Planeamiento de la Educación). 1977. Informe Final. Caracas, Venezuela.

90. The meeting on educational financing sponsored by the Inter-American Development Bank, in November 1976, showed some interesting lines for future research. A special effort was made to relate research and practice in defining new studies. The Bank was to organize a follow-up workshop for officials from Ministries of Education in mid-1978.

91. B. Hudson, cited in note 24, above, pp. 36-41.

92. P. Cariola, cited in note 55, above.

93. Unesco's system allows subscribers to pay with local currency; unfortunately, it is not common knowledge.

94. P. Cariola, cited in note 55, above.

95. E. Schiefelbein. 1982. Educational financing in developing countries: research findings and contemporary issues. IDRC-TS38e. International Development Research Centre, Ottawa, Canada.

96. The teacher effectiveness state-of-the-art prepared by Avalos and Haddad for the Research Review and Advisory Group showed that the many teachers working in this field have few opportunities for sharing experiences.

97. B. Hudson, cited in note 24, above, pp. 6-7.

98. E. Schiefelbein, cited in note 23, above.

99. E. Schiefelbein, cited in note 21, above, pp. 67-78. The report gives 17 recommendations on networks and a discussion summary.

100. J.B. Toro. 1978. La Difusión de la Información Científica en América Latina. El caso de la Revista Educación Hoy. Paper presented at the Meeting of the Comparative and International Education Society, Mexico.

101. Latapí has launched the "Reuniones de Información Educativa" where researchers and practitioners can discuss relevant educational issues. Through the Consejo Nacional de Ciencia y Tecnología, he has organized seminars for researchers. Latapí also writes a bimonthly column for a leading newspaper.

102. Since 1969, five national encounters on educational research have been held in Chile. Several seminars have been held in 1979 and 1981 to discuss articles published by the Centro de Investigación y Desarrollo de la Educación in its **Cuadernos de Educación.** From time to time, research results are featured in the leading newspapers.

103. Unesco. 1977. Final report: International Conference on Education, 36th Session. Unesco, Geneva.

ANNEX I

PERIODICAL PUBLICATIONS WITH LATIN AMERICAN DISTRIBUTION

The following list was extracted from the 1977 Library Accession Lists prepared by the OREU documentation centre (Oficina Regional de la Educación de la Unesco). These publications produce articles relevant to Latin American education and the majority are not cited elsewhere in the report.

Addenda a "Informaciones y Documentos". Buenos Aires, Argentina. Centro Nacional de Documentación e Información Educativa, Ministerio de Cultura y Educación.

A.I.D. Research and Development Abstracts. Washington, D.C. Agency for International Development.

Analise E informação Documentaria/Analysis E documentary Information/Análisis E informacion documental. Río de Janeiro, Brasil. Setor de Documentação SEDOC.

Anuario Estadístico. Santiago, Chile. Consejo de Rectores Universidades Chilenas.

Aula. México. Centro Regional de Construcciones Escolares para América Latina y la Región del Caribe.

Bibliografía Educativa Venezolana. Caracas, Venezuela. Centro de Documentación e Investigación Pedagógica, Universidad del Zulia.

Boletim da Biblioteca FAFI-BH. Belo Horizonte, Brasil. Facultade de Filosofia e Letras de Belo Horizonte, Fundação Cultural de Belo Horizonte.

Boletín AEC do Brasil. Río de Janeiro, Brasil. Associação de Educação Catolica do Brasil.

Boletín Bibliográfico. Santiago, Chile. Biblioteca Centro Bellarmino.

Boletín Bibliográfico del Centro Regional para el Fomento del Libro en América Latina. Bogotá, Colombia. Centro Regional para el Fomento del Libro en América Latina.

Boletín CINTERFOR. Montevideo, Uruguay. Centro Interamericano de Investigación y Documentación sobre Formación Profesional.

Boletín de Capacitación Ocupacional. Santiago, Chile. Centro de Documentación, Información y Difusión.

Boletín de Contenidos. La Plata, Argentina. Centro Provincial de Información Educativa.

Boletín de Información Educativa. Santa Fé, Argentina. Centro Provincial de Documentación e Información Educativa, Ministerio de Educación y Cultura.

Boletín de la Oficina Regional de Ciencia y Tecnología de la Unesco para América Latina y el Caribe. Montevideo, Uruguay. Oficina Regional de Ciencia y Tecnología de la Unesco para América Latina y el Caribe.

Boletín del Instituto Interamericano del Niño. Montevideo, Uruguay. Instituto Interamericano del Niño.

Boletín Digesto Escolar. La Plata, Argentina. Centro Provincial de Información Educativa.

Boletín Documental. Maracaibo, Venezuela. Centro de Documentación e Investigación Pedagógica, Universidad del Zulia.

Boletín Informativo. Santiago, Chile. Centro Interamericano de Enseñanza Estadística, Organization of American States.

Boletín Informativo. Santiago, Chile. Centro Interuniversitario de Desarrollo Andino.

Boletín Informativo. Santiago, Chile. Servicio de Desarrollo Docente, Universidad de Chile.

Boletín Informativo. Santiago, Chile. Universidad Católica de Chile.

Boletín Informativo CLEA. Santiago, Chile. Centro Latinoamericano de Educación de Adultos.

Boletín Informativo CREFAL. Pátzcuaro, Michoacán, México. Centro Regional de Educación de Adultos y Alfabetización Funcional para América Latina.

Boletín Informativo del CMTL/FESIED. San José, Costa Rica. CMTL/FESIED.

Boletín Informativo del Instituto Internacional de Integración del Convenio "Andrés Bello". La Paz, Bolivia. Instituto Internacional de Integración.

Boletín Informativo SECAB. Bogotá, Colombia. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Cadernos de Pesquisa. São Paulo, Brasil. Fundação Carlos Chagas.

Chasqui. Santiago, Chile. Secretaría General de la Comisión Coordinadora del Proyecto de Fomento del Cooperativismo en la Zona Andina.

CINTERFOR/DOCUMENTACION. Montevideo, Uruguay. Centro Interamericano de Investigación y Documentación sobre Formación Profesional.

CONESCAL. México. Centro Regional de Construcciones Escalores para América Latina y la Región del Caribe.

Cuadernos de Educación. Santiago, Chile. Centro de Investigación y Desarrollo de la Educación.

Cuadernos de Educación de Adultos. Caracas, Venezuela. Ministerio de Educación.

Cuadernos del Consejo Nacional de la Universidad Peruana. Lima, Perú. Consejo Nacional de la Universidad Peruana.

Curriculum. Caracas, Venezuela. Proyecto Multinacional de Capacitación para Profesores de América Latina en el area de Curriculum.

Didáctica. Marilia, Brasil. Departamento de Educação, Faculdade de Filosofía, Ciencias e Letras, Universidades Estadual Paulista "Julio de Mesquita Filho".

Docencia. México. Universidad Autónoma de Guadalajara.

Documentación Educativa. Bogotá, Colombia. Universidad Pedagógica Nacional.

Educación. México. Consejo Nacional Técnico de la Educación.

Educación de Adultos. Lo Barnechea, Santiago de Chile. Proyecto Multinacional de Educación Integrada de Adultos, Centro de Perfeccionamiento, Experimentación e Investigaciones Pedagógicas.

Educadores - Informativo. La Plata, Argentina. Juan A. Morales, Director.

Educar. Bogotá, Colombia. División de Documentación e Información Educativa, Ministerio de Educación.

El ISE Informa. Asunción, Paraguay. Ministerio de Educación y Culto.

El Núcleo. Santo Domingo, Republica Dominicana. Secretaría de Estado de Educación, Bellas Artes y Cultos.

Estudios Pedagógicos. Valdivia, Chile. Facultad de Letras y Educación, Universidad Austral de Chile.

Estudios Sociales. Santiago, Chile. Corporación de Promoción Universitaria.

Guía de Tecnología Educativa. Panamá. Entre Ríos.

Hoja Informativa. Tucumán, Argentina. Centro de Investigación y Desarrollo de la Educación.

Indice de Información. Pátzcuaro, México. Centro Regional de Educación de Adultos y Alfabetización Funcional para América Latina.

Informaciones Trimestrales. La Habana, Cuba. Centro de Documentación, Oficina Regional de Cultura para América Latina y el Caribe.

Informaciones y Documentos. Buenos Aires, Argentina. Centro Nacional de Documentación e Información Educativa.

Informador Universitario. Caracas, Venezuela. Consejo Nacional de Universidades.

Informativo de CEDOC. Antofagasta, Chile. Universidad del Norte.

Informativo Estadístico. Santiago, Chile. Instituto Nacional de Estadísticas.

Informativo sobre el Centro Multinacional de Educación de Adultos (CEMEDA/MEP/OEA). San José, Costa Rica. Centro Multinacional de Educación de Adultos, Ministerio de Educación.

Innovación. Ginebra, Unesco. Servicio Internacional de Información sobre Innovaciones Educativas.

Integración Latinoamericana. Buenos Aires, Argentina. Instituto para a Integración de América Latina.

La Educación. Washington, D.C. Organization of American States.

La Semana Científica y Tecnológica. Santiago, Chile. Comisión Nacional de Investigación Científica y Tecnológica.

Limen. Buenos Aires, Argentina. Editorial Kapelusz.

Noticias de la Universidad Austral de Chile. Valdivia, Chile. Vicerrectoría de Extensión y Comunicaciones.

Noticias del CERLAL. Bogotá, Colombia. Centro Regional para el Fomento del Libro en América Latina.

Panorama. San José, Costa Rica. International Council for Adult Education.

Pensamiento y Acción. Santiago, Chile. Centro para el Desarrollo Económico y Social de América Latina.

Punto 21. Montevideo, Uruguay. Centro de Investigaciones y Experimentación Pedagógica.

Renovaçao. Río Grande do Sul, Brasil. Secretaria de Educação e Cultura.

Reseña Informativa. La Plata, Argentina. Centro Provincial de Información Educativa.

Resúmenes Analíticos en Educación. Santiago, Chile. Centro de Investigación y Desarrollo de la Educación.

Revista Brasileira de Estudos Pedagogicos. Río de Janeiro, Brasil. Instituto Nacional de Estudos e Pesquisas Educacionais.

Revista de Educaçao AEC. Río de Janeiro, Brasil. Associação de Educação Catolica do Brasil.

Revista de Educación. Santiago, Chile. Ministerio de Educación, Centro de Perfeccionamiento, Experimentación e Investigaciones Pedagógicas.

Revista de la Educación Superior. México. Asociación Nacional de Universidades e Institutos de Enseñanza Superior.

Revista del Centro de Estudios Educativos. México. Centro de Estudios Educativos.

Revista del Instituto de Investigaciones Educativas. Buenos Aires, Argentina. Instituto de Investigaciones Educativas.

Revista de Pedagogía. Santiago, Chile. FIDE.

Revista Senai. Río de Janeiro, Brasil. Servicio Nacional de Aprendizagem Industrial.

Señales. Caracas, Venezuela. Centro de Televisión Educativa, Universidad del Zulia.

Síntesis CEDAL. México. Instituto Latinoamericano de la Comunicación Educativa.

Sociedade Pestalozzi do Brasil. Río de Janeiro, Brasil. Ministerio da Educação e Cultura.

ANNEX II

REGIONAL MEETINGS

The following list was obtained from the 1977 Library Accession Lists prepared by the OREU documentation centre (Oficina Regional de la Educación de la Unesco). These meetings dealt specifically with educational topics and the majority are not cited elsewhere in the report.

Seminario sobre "Difusión del sistema de nuclearización educativa". Lima, Perú, 2-10 November 1972. Ministerio de Educación.

Reunión de Ministros de Educación de los paises signatarios del Convenio "Andrés Bello". Viña del Mar, Chile, 7-10 April 1975. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Reunión de organismos oficiales del fomento deportivo de los paises signatarios del Convenio "Andrés Bello", I. Bogotá, Colombia, 17-20 June 1975. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Seminario sobre actualización conceptual y metodológica de la administración educativa y planeamiento del currículo. Buenos Aires, Argentina, August-November 1975. Ministerio de Educación y Cultura/Centro de Estudios sobre Administración y Supervisión de la Educación.

Reunión de especialistas: "Investigación sobre las vinculaciones que existen entre la planificación del desarrollo socio-económico y la planificación de la educación tecnológica en Honduras y México". 1976. Programa Regional de Desarrollo Educativo/ Organization of American States.

Seminario-taller para la enseñanza de la química inorgánica. Santo Domingo, Republica Dominicana, 14-25 June 1976. United Nations Development Programme/Unesco.

Seminario latinoamericano para Directivos de teleducaçao, IX. Porto Alegre, Brasil, 21-30 June 1976. Fundaçao Educacional Padre Landell de Moura.

Reunión de Ministros de Educación de los paises signatarios del Convenio "Andrés Bello". Bogotá, 29-31 July 1976. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Seminario "Nuevos enfoques de la educación para la comprensión internacional y la paz". Mar del Plata, Argentina, 5-20 August 1976. Unesco/Comisión Nacional Argentina de Cooperación con la Unesco.

Seminario regional sobre la formación profesional de la mujer trabajadora. Bogotá, Colombia, 9-16 August 1976. Centro Interamericano de Investigación y Documentación sobre Formación Profesional.

Seminario para examinar la metodología de estudio y las acciones consecuentes a la entrega, por parte de la Unesco, del "Estudio de viabilidad de un sistema regional de teleducación para los paises de América del Sur". Caracas, Venezuela, 12-16 October 1976. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Seminario sobre políticas económicas y de investigación de las escuelas radiofónicas. San José, Costa Rica, 18-23 October 1976. Asociación Latinoamericana de Educación Radiofónica.

Reunión técnica análisis de costos de la formación profesional. Viña del Mar, Chile, 8-12 November 1976. Centro Interamericano de Investigación y Documentación sobre Formación Profesional/Institute of Nutrition of Central America and Panama.

Reunión de la Comisión de Cultura del Convenio "Andrés Bello", I. Caracas, Venezuela, 1-3 December 1976. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Seminar for field experts in educational planning and their counterparts on ways and means of improving the effectiveness of educational administration within the context of educational reform. Paris, 9-17 December 1976. Unesco/International Institute for Educational Planning.

Reunión consultiva sobre certificación de las calificaciones ocupacionales de los trabajadores de América Latina y el Caribe. Montevideo, Uruguay, 1977. Centro Interamericano de Investigación y Documentación sobre Formación Profesional.

Seminario de educación técnica. Tegucigalpa, Honduras. February 1977. United Nations Development Programme/Unesco/Ministerio de Educación.

Seminario sobre necesidades educativas básicas de la población rural de Centroamérica y Panamá. Costa Rica, El Salvador, Guatemala, Nicaragua, Honduras, Panamá, February-June 1977. Proyecto Red de Sistemas Educativos para el Desarrollo en Centroamérica y Panamá.

Seminario-taller sub-regional sobre la enseñanza de la geografía en América Central, Antillas y México. Panamá, 6-12 February 1977. Sección Nacional Panameña/Instituto Panamericano de Geografía e Historia/Organization of American States.

Reunión de la Comisión de Tecnología Educativa del Convenio "Andrés Bello", I. Lima, Perú, 14-18 March 1977. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Reunión de expertos para considerar al anteproyecto para la creación del Instituto Andino de Artes Populares del Convenio "Andrés Bello", I. Quito, Ecuador, 23-25 March 1977. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello.".

Reunión de secretarios nacionales del Convenio "Andrés Bello". Bogotá, Colombia, 18-20 April 1977. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Reunión de la Comisión de Ciencia y Tecnología del Convenio "Andrés Bello", IV. Santiago, Chile, 10-13 May 1977. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Seminario sobre políticas de formación profesional rural. Asunción, Paraguay, 23-26 May 1977. Centro Interamericano de Investigación y Documentación sobre Formación Profesional.

Reunión del Comite regional creado en virtud del artículo 10 del Convenio de Convalidación de Estudios, Títulos y Diplomas de Educación Superior en América Latina y el Caribe, I. Panamá, 24-28 May 1977. Unesco.

Reunión de la Comisión Técnica, XV. Asunción, Paraguay, 27-30 May 1977. Centro Interamericano de Investigación y Documentación sobre Formación Profesional.

Reunión de Ministros de Educación de los paises signatorios del Convenio "Andrés Bello". Lima, Perú, 6-8 June 1977. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Reunión de los encargados regionales de los programas Unesco de apoyo a la formación del personal nacional de alfabetización. Paris, 6-10 June 1977. Unesco.

Reunión de la Junta de Jefes de Planeamiento de los paises signatarios del Convenio "Andrés Bello", VII. Lima, Perú, 6-10 June 1977. Ministerio de Educación.

Congreso panamericano del niño, XV. Montevideo, Uruguay, 6-11 June 1977. Ministerio de Educación.

Seminario-taller sobre: "Formación permanente de los docentes de educación básica", III. El Salvador, 14-17 June 1977. Proyecto Red de Sistemas Educativos para el Desarrollo en Centroamérica y Panamá.

Reunión del Comité Intergubernamental Interino para la Educación Física y el Deporte, I. Paris, 4-13 July 1977. Unesco.

Seminario-taller de racionalización administrativa, XX. Santa Eulalia, Perú, 4-15 July 1977. Ministerio de Educación.

Reunión del grupo consultivo sobre la enseñanza de ingenieros y técnicos de categoría superior. Paris, 5-8 July 1977. Unesco.

Seminar nacional de información científica y tecnológica. Santiago, Chile, 5-8 July 1977. Comisión Nacional de Investigación Científica y Tecnológica/Organization of American States.

Reunión de Ministros de Educación de los paises signatarios del Convenio "Andrés Bello". Lima, Perú, 6-8 July 1977. Secretaría Ejecutiva Permanente del Convenio "Andrés Bello".

Seminario-taller nacional de investigación sobre necesidades educativas básicas. Guatemala, 11-15 July 1977. UNICEF/Unesco/Coordinación Educativa Centroamericana.

Seminario-taller nacional sobre investigación sobre necesidades educativas básicas. El Salvador, 18-22 July 1977. UNICEF/Unesco/Coordinación Educativa Centroamericana.

Seminario-taller nacional de investigación sobre necesidades básicas. Honduras, 25-29 July 1977. UNICEF/Unesco/Coordinación Educativa Centroamericana.

Seminario del Proyecto "Desarrollo y Educación en América Latina y el Caribe", I. Quito, Ecuador, 13-17 September 1977. United Nations Development Programme/Unesco/ Comisión Económica para América Latina.

Reunión del grupo asesor, I. Guatemala, 26-27 September 1977. Proyecto Red de Sistemas Educativos para el Desarrollo en Centroamérica y Panamá.

Seminario nacional sobre transferencia de tecnología en educación. Santiago, Chile, 14-16 November 1977.

Reunión técnica sobre coordinación entre la capacitación para el trabajo y la educación formal. Brasília, Brasil, 28 November-2 December 1977. Organization of American States/Centro Interamericano de Investigación y Documentación sobre Formación Profesional.

Seminario regional sobre formación de administradores y supervisores escolares. Caracas, Venezuela, 28 November-2 December 1977.

Réunion des directeurs nationaux et des conseillers techniques principaux des projets opérationnels PNUD/Unesco de formation des personnels de l'éducation. Yaoundé, Afrique, 5-16 Décembre 1977. Unesco.